Weekly Influenza Surveillance Report

Maryland Department of Health and Mental Hygiene | Infectious Disease and Environmental Health Administration
Office of Infectious Disease Epidemiology and Outbreak Response

SYNOPSIS

During week 48, influenza activity in Maryland remained at levels similar to recent weeks. The proportion of visits to providers due to influenza-like illness (ILI) was below baseline. The proportion of Maryland residents reporting ILI also remains low. No outbreaks of influenza or ILI were reported. Five influenza-associated hospitalizations were reported. Positive rapid influenza tests continue to be reported by collaborating laboratories in low numbers. Based on all the information available, influenza activity in Maryland remains "SPORADIC" with "MINIMAL INTENSITY".

Influenza activity indicators have trended upward in the last few weeks, as is normally the case as the weather gets colder. Last season (2009-10), influenza activity peaked in mid-October. From 2004 to 2009, influenza activity in Maryland peaked between late January and early March. Whether or not that will be the case this season remains to be seen and is dependent on many factors.

INFLUENZA-LIKE ILLNESS SURVEILLANCE (ILINet)

During week 48, 9 sentinel providers reported 114 (1.8%) of 6,394 visits to their practices were for ILI. This is below the state baseline of 5.6%.

This same week last season, when influenza activity peaked late in October of 2009 and was on the decline by December, the proportion of visits for ILI was 2.8%.

For more information on the US Outpatient Influenza-like Illness Reporting Network (ILINet), please visit our website: http://dhmh.maryland.gov/fluwatch and click on "ILINet Sentinel Providers".

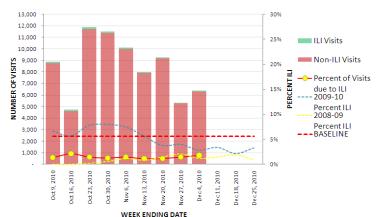


Figure 1. Number of visits and proportion of visits for ILI to ILINet sentinel providers, 2010-11 influenza season

CLINICAL LAB REPORTS OF RAPID FLU TESTING

During week 48, 20 clinical laboratories reported 14 (3.4%) of 409 rapid influenza tests as positive. Nine were positive for type A, and five were positive for type B influenza. This proportion of positive tests was about the same as the proportion reported at this time last season, which was 3.6%.

It is important to remember that early in the season (such as now), when influenza is not very prevalent (established) in the community, rapid influenza tests tend to be less accurate than PCR tests or viral culture.

	440 420													30%				
	400 - 380 - 360 -													- 25%		- R	Rapid Positive	€
ID TESTS	340 - 320 - 300 - 280 - 260 -	p	o o o o o o o o o o o o o o o o o o o											- 20%	POSITIVE	F	Rapid Negati	ve
OFRAP	240 - 220 - 200 -					1								- 15%		- ∕ P	Percent Posit	ive
NUMBER OF RAPID TESTS	180 - 160 - 140 - 120 -						1	\						- 10%	PERCENT		2009-10 Perc Positive	ent
	100 - 80 - 60 - 40 -	4	,							, S				- 5%			2008-09 Perc Positive	ent
	20 1	1	\ <u></u>			Ų,								0%				
		Oct 9, 2010	Oct16, 2010	Oct 23, 2010	Oct 30, 2010	Nov 6, 2010	Nov 13, 2010	Nov 20, 2010	Nov 27, 2010	Dec4, 2010	Dec11, 2010	Dec18, 2010	Dec25, 2010					
						WEE	K ENI	DING	DATE									

Figure 2. Number and result of rapid tests reported by clinical laboratories, 2010-11 influenza season

Type of Positives	Number (%)	
Type A	39 (68%)	
Type B	18 (32%)	
Positive, but not typed	0	
Total Positive	57 (100%)	

Table 1. Number of positive rapid influenza tests, by type, reported by collaborating clinical laboratories, 2010-11 season

GET VACCINATED!

Go to

http://dhmh.maryland.gov/swineflu/getVaccinated.html and find your local health department for more information.

MARYLAND RESIDENT INFLUENZA TRACKING SURVEY (MRITS)

During week 48, 632 (41.1% of total) participants in the MRITS responded to the weekly survey. Of those who responded, 6 (0.9%) reported flu-like illness. This proportion is lower than this same week last season, when about 3% of respondents reported flu-like illness.

We are always looking for more participants for the MRITS. If you know someone who would like to participate, please direct them to our website: http://dhmh.maryland.gov/flusurvey.

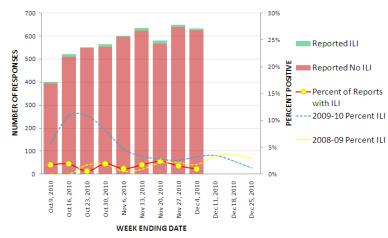


Figure 3. Number of responses and proportion reporting ILI to the MRITS by week, 2010-11 influenza season

DHMH LABORATORIES ADMINISTRATION REPORTS

During week 48, the DHMH Laboratories Administration performed a total of 43 PCR tests for influenza. Four were positive for influenza; three were type A H3 and one was type B.

The table to the right shows the breakdown of positive tests by influenza strain for the 2010-11 influenza season.

More information on the valuable work done by the DHMH Laboratories Administration is available at http://dhmh.maryland.gov/labs.

Influenza	а Туре	No. (%)				
Type A						
	H1	2 (17%)				
	Н3	8 (67%)				
	Unsubtyped	0 (0%)				
Type B		2 (17%)				
TOTAL		12 (100%)				

Table 1. Number of respiratory samples positive for influenza by PCR reported by the DHMH Labs Administration, 2010-11 influenza season

EIP INFLUENZA HOSPITALIZATION SURVEILLANCE

During week 48, five hospitalizations associated with influenza were reported to the Emerging Infections Program (EIP). To date, there have been 37 hospitalizations associated with influenza reported to EIP.

To be a confirmed hospitalization associated with influenza, the person must be hospitalized and have a positive influenza test of any kind (rapid test, PCR, culture).

This week last season, a total of 27 hospitalizations were reported. A total of 1,400 hospitalizations were reported to EIP last season.

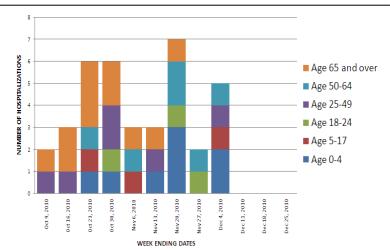


Figure 4. Number of hospitalizations associated with influenza, by age group and week, reported to the Emerging Infections Program, 2010-11 influenza season

DID YOU KNOW?

The American Lung Association released its latest health disparity report today, titled "Missed Opportunities: Influenza and Pneumonia Vaccination in Older Adults". The Lung Association is focusing on this disparity because despite the ready availability of safe and effective vaccines, millions of people over 65-years-old are not being vaccinated, especially older African Americans and Hispanics, who are at increased risk from these preventable, yet deadly, respiratory diseases. The report is at http://www.lungusa.org/lung-disease/influenza/reports/vaccination-disparities.html

REPORTS OF OUTBREAKS IN INSTITUTIONAL SETTINGS

No outbreaks of influenza, influenza-like illness, or pneumonia were reported to DHMH during week 48. Last season, a total of 208 outbreaks of respiratory illness were reported during the 2009-10 influenza season. Of those, 33 were confirmed as influenza outbreaks. Institutional settings include schools, hospitals, colleges and universities, and long-term care locations. An outbreak of ILI is re-classified as an outbreak of influenza if there is laboratory evidence of influenza virus present in the samples collected from case-patients during the outbreak.

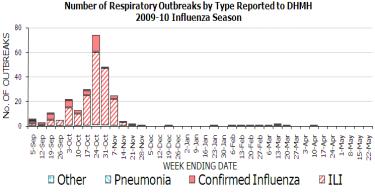


Figure 5. Number of outbreaks reported by week and by type during the 2009-10 influenza season. There have been no outbreaks of respiratory disease reported, 2010-11 influenza season.

EMERGENCY DEPARTMENT ILI REPORTS (ESSENCE)

During week 48, a total of 39,135 visits to emergency departments for all reasons were reported to the Office of Preparedness and Response through the ESSENCE system. Of those visits, 523 (1.3%) were for influenza-like illness. This is about the same proportion reported at this time during the 2008-09 influenza season, and lower than the 2.5% reported at this time last season (2009-10).

For more information on ESSENCE, please visit the Office of Preparedness and Response's web site at: http://bioterrorism.dhmh.state.md.us.

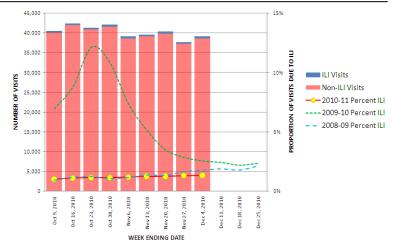


Figure 6. Number and proportion of visits to emergency departments for ILI by week reported through ESSENCE, 2010-11 influenza season.

GOOGLE FLU TRENDS

According to Google, influenza activity in Maryland is currently "LOW". What does this mean? From the Google Flu Trends Website: "We have found a close relationship between how many people search for flurelated topics and how many people actually have flu symptoms. Of course, not every person who searches for 'flu' is actually sick, but a pattern emerges when all the flu-related search queries are added together. We compared our query counts with traditional flu surveillance systems and found that many search queries tend to be popular exactly when flu season is happening. By counting how often we see these search queries, we can estimate how much flu is circulating in different countries and regions around the world."

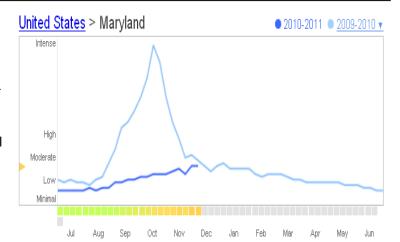


Figure 7 – According to Google Flu Trends, influenza activity in Maryland is currently "low". At this time last year, during the 2009 H1N1 influenza pandemic, influenza activity in Maryland was "high" to "intense".

DID YOU KNOW?

The "universal" flu vaccine has been a holy grail of sorts to immunologists and pharmaceutical companies for many years now. If found, that one vaccine would provide life-long coverage against influenza, like other vaccines already do for other maladies. Read about a company in the UK that is claiming to be very close to a universal flu vaccine: http://www.dailymail.co.uk/health/article-1336697/The-flu-jab-need-life.html

OFFICE OF INFECTIOUS DISEASE EPIDEMIOLOGY AND OUTBREAK RESPONSE

201 W. PRESTON ST.

BALTIMORE, MD 21201

PHONE: 401-767-6700

FAX: 410-669-4215

VISIT US ON THE WEB:

HTTP://DHMH.MARYLAND.GOV

ALL THE INFORMATION INCLUDED IN THIS REPORT IS PROVISIONAL AND SUBJECT TO CHANGE AS MORE DATA ARE RECEIVED FROM SURVEILLANCE SOURCES.

THE INFORMATION INCLUDED IN THIS REPORT IS NOT INTENDED TO BE USED FOR INDIVIDUAL DIAGNOSES.

ONLINE VERSION OF THIS REPORT AND PAST SEASONS' REPORTS MAY BE DOWNLOADED AT:

DHMH.MARYLAND.GOV/FLUWATCH

FLU SURVEILLANCE IN NEIGHBORING STATES:

DELAWARE-

HTTP://BIT.LY/9Zkp3

DC-

http://tinyurl.com/yj7br9e

PENNSYLVANIA-

http://tinyurl.com/37323xn

VIRGINIA-

http://tinyurl.com/kmnaeu

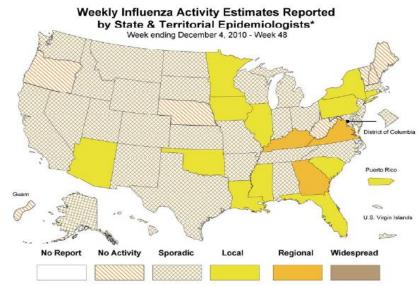
WEST VIRGINIA-

http://tinyurl.com/2u53nuc

CDC NATIONAL INFLUENZA SURVEILLANCE REPORT (http://cdc.gov/flu/weekly)

During week 48 (November 28-December 4, 2010), influenza activity in the United States remained relatively low overall, and decreased slightly in the Southeast.

- Of the 3,572 specimens tested by U.S. World Health
 Organization (WHO) and National Respiratory and Enteric Virus
 Surveillance System (NREVSS) collaborating laboratories and
 reported to CDC/Influenza Division, 386 (10.8%) were positive
 for influenza.
- The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.
- No influenza-associated pediatric deaths were reported.
- The proportion of outpatient visits for influenza-like illness (ILI) was 1.5%, which is below the national baseline of 2.5%. All 10 regions reported ILI below region-specific baseline levels; one state (Georgia) and New York City experienced low ILI activity and the District of Columbia and 49 states experienced minimal ILI activity.
- The geographic spread of influenza in three states (Georgia, Kentucky, and Virginia) was reported as regional; Puerto Rico and 12 states reported local activity; the District of Columbia, the U.S. Virgin Islands, and 29 states reported sporadic activity; Guam and six states reported no influenza activity.



Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILInet
2010-11 Influenza Season Week 48 ending Dec 04, 2010

